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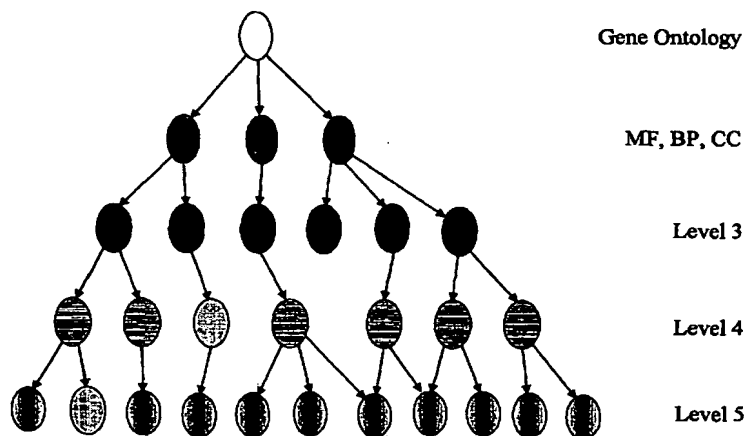
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(54) Title: A SYSTEM FOR ANALYZING BIO CHIPS USING GENE ONTOLOGY AND A METHOD THEREOF

Gene Ontology

MF, BP, CC

Level 3

Level 4

Level 5

(57) **Abstract:** Disclosed is a system for analyzing a bio chip using Gene Ontology(hereinafter referred to "GO") and a method thereof. According to a preferred embodiment of the present invention, it is provided a system for analyzing a bio chip comprising : a GO(gene ontology) term assigning part for receiving a statistical clustering data obtained from empirical results of the bio chip, and assigning relevant GO terms to every gene contained in each cluster; a GO code converting part for converting the GO terms assigned by the GO term assigning part to the genes into GO codes, the GO code comprising a group of predetermined numbers; and a biological meaning extracting part for calculating pseudo distances between one of GO terms on GO tree structure contained in a predetermined group and the GO terms corresponding to the genes contained in the cluster, and calculating at least one of average pseudo distance or maximum pseudo distance of the calculated pseudo distances, and calculating at least one of average pseudo distances or maximum pseudo distances for all GO terms included on GO tree structure in the predetermined group and the GO terms corresponding to the genes contained in the cluster, and determining an optimum GO term matching with the cluster.